

Tick Talk



Lessons on Preventing Lyme Disease for Elementary School Students



Massachusetts Department of Public Health

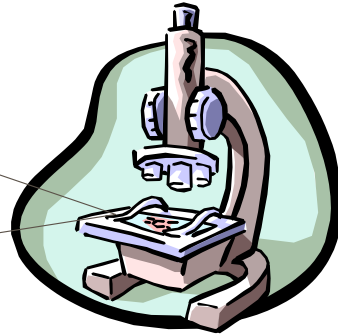
August 2005



Note to Teachers: Please review the supplemental information about Lyme Disease prior to showing these slides!

What is Lyme disease?

- Lyme disease is caused by a germ
- The germ can make people and pets sick



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Lyme disease is caused by a germ.

The germ can only be seen by looking through a microscope.

The white long squiggles in the picture are the germs that cause Lyme disease.

We know that both people and pets can get the germ and get sick.

The scientific name of the germ is *Borrelia burgdorferi*.

The germ lives inside the
stomach of a deer tick



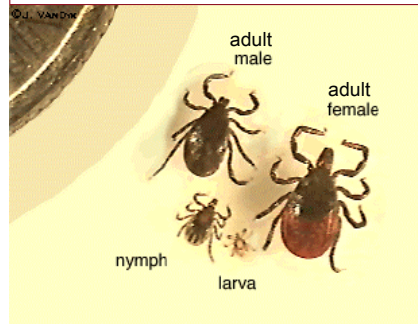
**In Massachusetts it is the deer tick that carries the disease.
The Lyme disease germ lives in the stomach of a deer tick.**

What do ticks look like?

There are many different kinds of ticks, and they can be found at different stages of growth.



Deer Ticks



Larvae have 6 legs, and nymphs and adults have 8 legs!

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Larva → Nymph → Adult

Look at the sizes of deer ticks. Young deer ticks are tiny and grow larger as they become adults. Ticks start off hatching from eggs.

- A very young deer tick is called a larva (plural is “larvae,” pronounced “Lahr-Vee”) . The larvae are very tiny – as small as a period at the end of a sentence.
- Larvae grow into nymphs which are bigger than the larvae but still tiny - only the size of a poppy seed.
- The nymphs grow into adults.

How do ticks get the germ?

- Ticks get the germ by biting and feeding on an animal that has Lyme disease such as a:
 - Mouse
 - Bird
 - Other small animal



Ticks can get the germ by biting and feeding on mice, birds, and other small animals that have the germ.

Not all animals have the germ.

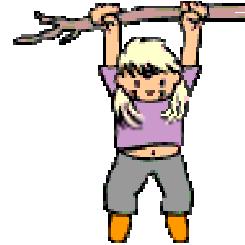
Once a tick gets the germ it has it for the rest of its life.

Ticks can pass the germ on to other animals

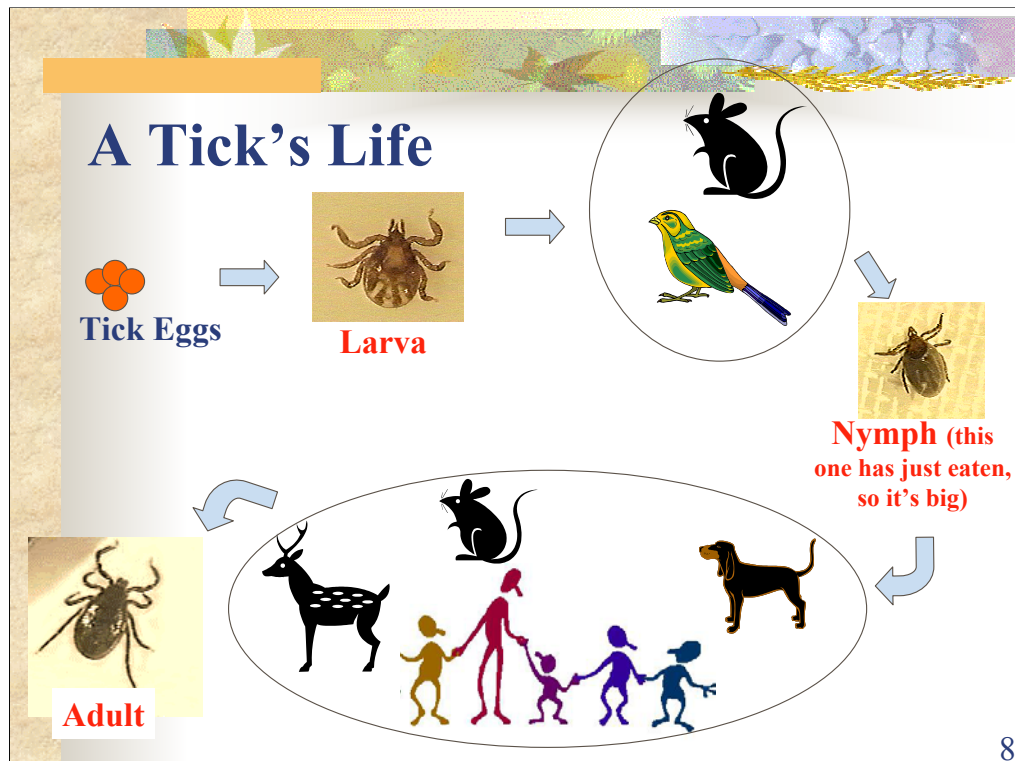


Ticks can pass the germ on to other animals such as mice, birds, chipmunks and deer. These animals carry the germ but are not sick.

Ticks can also pass the germ on to people and pets, making them sick



People and pets can get sick if they get bitten by a tick that carries the germ.



It takes 2 years for a tick to grow into an adult.

Tick eggs are laid in the spring. Young ticks called larvae hatch from the eggs in the summer. Larvae bite and then feed on the blood of small animals. The larvae may get the germ by biting a mouse that has Lyme disease. If the larvae gets the germ, it will have the germ for the rest of its life. (Not all ticks get the germ.)

The larvae grow into the bigger nymphs in the fall. The nymph usually sleeps or becomes inactive during the fall into the winter. When spring arrives, the nymph can bite people, pets and deer, or more mice. If the nymph has the germ, it can pass the disease or illness onto people and pets.

Nymphs grow into adult ticks in the fall. The adult tick bites and feeds on large animals such as deer. If the adult tick has the bacteria, it can pass it on to humans through a bite. It's much easier to spot an adult tick, and remove it, because the adult ticks are large.

Where are ticks found?



A tick on a blade of grass waiting to grab onto someone!



- Woods
- Grass
- Shrubs
- Piles of leaves and brush

Ticks are found in the woods and any place where there is tall grass, or piles of leaves and shrubs.

How Do People Get Bitten by Ticks?



- Ticks do not fly or jump.
- Ticks grab onto people (or clothes) when they walk through a grassy or wooded area.
- A tick will then crawl to a feeding spot on the person's skin.

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- Ticks wait on the tips of tall grass, shrubs, and piles of leaves for a person or animal to walk by. The tick grabs onto clothes or fur.
- Since ticks cannot jump or fly, they will wait for a person or an animal to brush up against them to attach.
- Once the tick attaches, it will slowly crawl to find a good spot to bite and feed.



Usually, a tick must bite and stay attached to your skin for at least one day (24 hours) before it can give you Lyme disease.

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Once the tick finds a feeding spot, it must usually be attached for at least one day and up 2 days in order to pass on the germ that causes Lyme disease.

That's why it's so important to remove a tick as soon as you see one on yourself or your pet.

What are the signs of Lyme disease?



- **Rash**

- May look like a "bull's eye" or a "target"

- **Sore muscles**

- **Very tired**

- **Swollen joints**

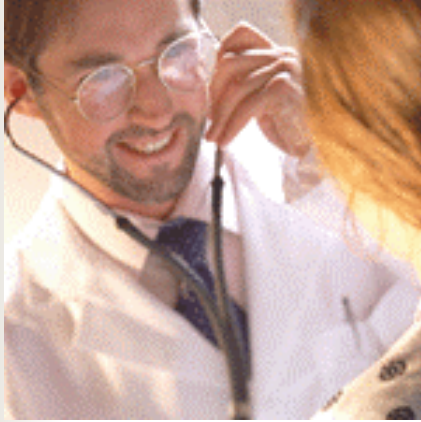
- Sometimes it can be very bad

Not everyone gets a rash, but some people get a rash that looks like a bull's eye or a target.

You can see the dark red circle in the middle and the lighter red circle surrounding it that makes it look like a bull's eye or a target.

Some people get swollen knees or other joints, or have sore muscles, or become very tired.

Treating Lyme Disease



**Your doctor will
give you
medicine if
necessary.**

How can you protect yourself from ticks?

When hiking or walking in grassy areas:



Wear long pants tucked into your socks to keep ticks off you.



Wear long-sleeved shirts and, light colored clothes to make it easier to spot ticks.

What if you find a tick on you?



- **Tell a grown-up**
- **Carefully remove ticks with a pair of fine point tweezers.**
- **Wash the bite with soap and water.**
- **Do not use gasoline or a match.**
- **Do not use Vaseline.**

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Why not gasoline or a match? Because these methods could harm the person.

Protect yourself from ticks.

When you have been outside...



- Check for ticks on your body every day.
- Ask a grown-up to help you.

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When you have been outside, working or playing in tick habitat, check your whole body from head to toe. Ask a grown-up to help you.

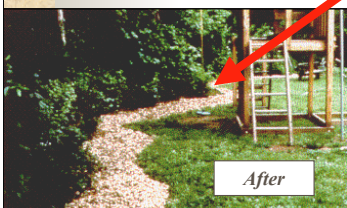
- Check your legs.
- Check the back of your knees.
- Check your neck and under your hair.
- Check armpits.
- Check in and behind your ears

Prevent Lyme Disease

- Check for ticks daily
- Avoid tick areas
- Cover up with light colored clothing + tuck pants in socks!



Before



After

- Make your yard safer—create a dry path between woods and your yard.

- Use bug spray



While this slide is projected, you ask the audience to list some ways to prevent Lyme Disease.

They can read the bullet points, or you can ask them to explain each picture.

The “Yard” picture on the bottom left shows a yard “before” and “after” a path of wood chips (or gravel or mulch) is placed between the woods and the grass.

Ticks would have to cross the path to enter the yard and bite someone. Crossing the barrier also would subject them to direct sun and therefore to drying out (remember, ticks like moist areas). The barrier also reminds people that if they cross the barrier into the wooded area, they may be at higher risk of getting ticks.

Pets can get Lyme Disease, too.



- **Check your pet for ticks after it has been outside.**
- **There are collars, sprays, powders, and other treatments to stop ticks from biting your pet..**
- **Ask your veterinarian for advice on protecting your pet from tick bites.**

Keep your yard safe from ticks.



- **Keep grass cut short**
- **Remove leaf piles and brush**
- **Use deer fencing**

**Remember,
You can prevent Lyme Disease by
Keeping Ticks off your Body!**

